Felipe Azzolino Varella

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Summary

Bachelor in Instrumentation, Automation and Robotics Engineering, as well as in Science and Technology with academical experience in Germany, I have been working since 2021 on projects related to data science and analysis in different scopes, having knowledge and professional experience with Python, covering several libraries such as Pandas, Plotly, Streamlit, Scikit-learn and Keras, as well as other tools and technologies such as Git, SQL, Docker, Bash and Azure.

Education

UFABC - Universidade Federal do ABC   **05/2017 – 04/2022**
Bachelor in Science and Technology   *Santo André, São Paulo, Brazil*

UFABC - Universidade Federal do ABC   **05/2017 – 12/2023**
Bachelor in Instrumentation, Automation and Robotics Engineering   *Santo André, São Paulo, Brazil*

HS Offenburg - Hochschule Offenburg   **01/2020 – 06/2020**
Academical Internship in Engineering and Computer Science   *Offenburg, Baden-Württemberg, Germany*

Extracurricular Activities and Academical Rewards

- I obtained a GPA of 3.6 and 3.7 (out of 4) in my Science and Technology, and Instrumentation, Automation and Robotics bachelor's degrees, respectively.
- Awarded in the first and second quarters of 2018 by the physics department of UFABC in recognition of performance in the Physics I and II courses.
- I was a volunteer in the "Corrente do Bem" project from Keralty association.
- In the third quarter of 2019, I carried out a undergraduate research project related to an optimization of a Baja-type car cage using a proprietary software.

Professional Experience

BuiltCode   **06/2021 – 10/2021**
Data Science Intern   *Santo André, São Paulo, Brazil*

- Developed a transformer-based model for telemarketing calls transcription.
- Developed a speaker diarization model through the approach of clustering the features generated from the convolutional layers of a pre-trained CNN.
- Developed a sales forecast model using statistics (ARIMA) and deep learning (RNN) approach.

BuiltCode   **10/2021 – 05/2022**
Junior Data Scientist   *Santo André, São Paulo, Brazil*

- Continued working in transcription and diarization projects.
- Assisted in the development of a sentiment analysis model via audio using classical machine learning models.
- Worked on many exploratory data analysis projects, such as extracting insights into which products are typically sold together and creating association rules using *apriori* algorithm.
- Developed and deployed to Azure data applications built with Streamlit and Dash.

Kogui   **05/2022 – 07/2022**
Junior Data Scientist   *Santo André, São Paulo, Brazil*

- Spin-off from BuiltCode, the scope of the projects remained the same, highlighting speech-to-text, exploratory data analysis projects, audio classification and data applications development.

Braskem   **07/2022 – Until Now**
Digital Transformation Industrial   *São Paulo, São Paulo, Brazil*

- Directly applying data science knowledge to solve engineering problems.

- Developed a data app to monitor how the temperature of a pyrolysis furnace increased, giving the user some graphical representations that allowed them to take useful insights from the process. This project also involved predicting future temperatures with polynomial regression.
- By using exploratory data analysis, developed a study to understand how process variables influence on the starting of synchronous motors.
- Developed a history-based optimization model to determine the optimal operating point for different loads and grades in an extrusion process.
- Tutored two courses focused on the use of data science in engineering.

Technical Skills

Programming and Command Languages

- **Python**: Advanced knowledge, including not only the use of the built-in functionalities, but also the use of external libraries such as Pandas, Numpy, Matplotlib, Plotly, Dash, Streamlit, Scikit-learn, Keras, HuggingFace transformers, Flask, MLflow and many others.
- **SQL**: Intermediate knowledge, mainly focused on data extraction to subsequently train models or make advanced data analysis using Pandas.
- **MATLAB**: Advanced knowledge, including the development of desktop apps with MATLAB App Designer and simulations with Simulink.
- **Bash**: Intermediate knowledge, including the use of commands for manipulating files via terminal, development of bash scripts and task automation.
- **C/C++**: Beginner-intermediate knowledge, mainly focused on programming for embedded systems.

Technologies and Tools

- **Git**: Intermediate knowledge, encompassing version control practices and collaborative development workflows.
- **Docker**: Intermediate knowledge, mainly focused on building custom container images to host applications developed in Streamlit, Dash and Flask.
- **Azure**: Beginner-intermediate knowledge, mainly focused on deploying applications.
- **Office**: Intermediate-advanced knowledge, mainly in Word, PowerPoint and Excel for preparing reports, presenting results and analyzing simpler data (which doesn't require programming knowledge), respectively.

Courses and Certifications

- **Coursera** (6 courses): Taught by the University of Michigan, DeepLearning.AI and Vanderbilt University, these courses are related to Python and MATLAB programming, Data Science, Data Visualization, Machine Learning and Deep Learning.
- **Alura** (16 courses): Related to Machine Learning, SQL, Web development, Azure and Git
- **Microsoft** (1 certification): Related to Azure (AZ-900 - Azure Fundamentals).
- **Udemy** (3 courses): Related to Python programming, Bash and SQL.

Languages

- **Portuguese**: Fluency in writing, reading, listening and speaking.
- **English**: Advanced knowledge in writing, reading, listening and speaking.
- **Spanish**: Beginner knowledge in writing and speaking, and beginner-intermediate knowledge in reading and listening.
- **German**: Beginner knowledge in writing, reading, listening and speaking.